

June 30, 2023

Docket No.: 52-026

ND-23-0534
10 CFR 52.99(c)(1)U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of 2.1.02.09a [Index Number 41]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria ITAAC item 2.1.02.09a [Index Number 41] for verifying Reactor Coolant System post-fuel load flow rate is greater than or equal to 301,670 gpm. The closure process for this ITAAC is based on the guidance described in NEI 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52," which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,



Jamie M. Coleman
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.1.02.09a [Index Number 41]

JMC/TL/sfr

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cc: Regional Administrator, Region II
 Director, Office of Nuclear Reactor Regulation (NRR)
 Director, Vogtle Project Office NRR
 Senior Resident Inspector – Vogtle 3 & 4

**Southern Nuclear Operating Company
ND-23-0534
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.1.02.09a [Index Number 41]**

ITAAC Statement

Design Commitment

9.a) The RCS provides circulation of coolant to remove heat from the core.

Inspections/Tests/Analyses

Testing and analysis to measure RCS flow with four reactor coolant pumps operating at no-load RCS pressure and temperature conditions will be performed. Analyses will be performed to convert the measured pre-fuel load flow to post-fuel load flow with 10-percent steam generator tube plugging.

Acceptance Criteria

The calculated post-fuel load RCS flow rate is $\geq 301,670$ gpm.

ITAAC Determination Basis

Testing was performed in accordance with Unit 4 preoperational test procedure 4-RCS-ITPP-506 (Reference 1) using Work Order 1192134 (Reference 2) to confirm that at no-load Reactor Coolant System (RCS) pressure and temperature conditions, the calculated post-fuel load RCS flow rate is $\geq 301,670$ gpm with 10-percent steam generator tube plugging.

The testing measured RCS parameters using installed and temporary instrumentation and was trended and recorded using plant computer trends and a high-speed data acquisition system. When the RCS was at approximately 557°F and 2240 psig with all 4 Reactor Coolant Pumps (RCPs) at 100% speed for a minimum of 12 hours to ensure thermal stability, the trend data was taken for approximately 10 minutes. This data was analyzed to determine the post-fuel load flow rate with 10-percent steam generator tube plugging. This analysis (Reference 4) was documented and attached to References 1 and 3.

The results of the testing and analysis demonstrate that the Unit 4 RCS flow rate is 312,880 gpm (Reference 4) which confirms the calculated post-fuel load RCS flow rate is $\geq 301,670$ gpm.

References 1 through 4 are available for NRC inspection as part of Unit 4 ITAAC 2.1.02.09a Completion Package (Reference 5).

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found there are no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.1.02.09a (Reference 5) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.1.02.09a was performed for VEGP Unit 4 and that the prescribed acceptance criteria were met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

1. 4-RCS-ITPP-506 Ver. 2.0-01, "Reactor Coolant Pump and Reactor Coolant Flow Precore Hot Functional"
2. SV4-RCS-T0W-1192134, Rev. 0, "Perform RCP Cold and Hot Precore Hot Functional Test per procedure 4-RCS-ITPP-506"
3. SV4-RCS-ITR-800041, Rev 0, "Unit 4 Recorded Results of RCS Flow Measurement Test: ITAAC 2.1.02.09a"
4. SV4-RCS-T2R-5061, Rev. 0, "Vogtle Unit 4 Hot Functional Testing – Reactor Coolant System Flow Summary Report"
5. 2.1.02.09a-U4-CP-Rev0, ITAAC Completion Package